

REMARKS

I. Status of Claims

Claims 1, 3 and 5-8 are pending in the application. Claims 1 and 7-8 are the independent claims. Claims 1, 3, 7-8 are currently amended. Support for the amendments to claims 1 and 8 may at least be found in at least paragraphs [0050] – [0053] of the application as published, as well as in claim 2 (now canceled). Thus, no new matter is added. Claim 4 was previously canceled and claim 2 is currently canceled without prejudice to and/or disclaimer of the subject matter therein.

Claims 1, 5, 6 and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,199,372 (“Wakamoto”) in view of U.S. Patent Application Publication No. 2004/0035101 (“Imai”).

Claims 2 and 3 stand rejected under § 103(a) as allegedly being unpatentable over Wakamoto in view of Imai and further in view of U.S. Patent No. 6,829,886 (“Nakata”).

Claim 7 is allowed.

The Applicant respectfully requests reconsideration of the rejections in view of the following remarks.

II. Allowed Claim 7

Claim 7 is objected to because on line 1 of the claim, the phrase “The apparatus according to claim 1,” should be deleted. The Office Action indicates that the claim will be allowed if this phrase is removed. Claim 7 has been amended as suggested by the Examiner. Accordingly, withdrawal of the objection, and allowance of claim 7, is respectfully requested.

III. Pending Claims

After the above-identified amendments (which incorporate subject matter of canceled claim 2 into independent claims 1 and 8, independent claims 1 and 8 would appear to stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wakamoto in view of Imai and Nakata.

The Applicant respectfully submits that claim 1 is patentable over the cited references at least because it recites, *inter alia*, “...a determining section that determines whether the vehicle

is driving downhill, wherein the determining section determines that the vehicle is driving downhill when the amount of fuel injected by a fuel injection valve of the engine is equal to or less than a predetermined amount and a ***vehicle driving speed*** is equal to or greater than a ***predetermined driving speed***.” (emphasis added)

The Applicant respectfully submits that claim 8 is patentable over the cited references at least because it recites, *inter alia*, “...wherein the determining includes determines that the vehicle is driving downhill when the amount of fuel injected by a fuel injection valve of the engine is equal to or less than a predetermined amount and a ***vehicle driving speed*** is equal to or greater than a ***predetermined driving speed***.” (emphasis added)

Claims 1 and 8 of the present application are directed to an exhaust purifying apparatus for a vehicle. The apparatus purges particular matter in a filter, such as a catalyst, by injecting additional fuel into the exhaust line upstream of the filter. The apparatus includes a regeneration control section and a determining section. The regeneration control section controls the addition of fuel. This section also stops the addition of fuel when the determining section determines that the vehicle has been traveling downhill for a predetermined period of time. The determining section makes a downhill determination based on several conditions, including whether the ***vehicle’s driving speed*** is equal to or greater than a ***predetermined driving speed*** and whether a fuel cutoff control is being executed. This condition is represented by step S200 in Figure A below.

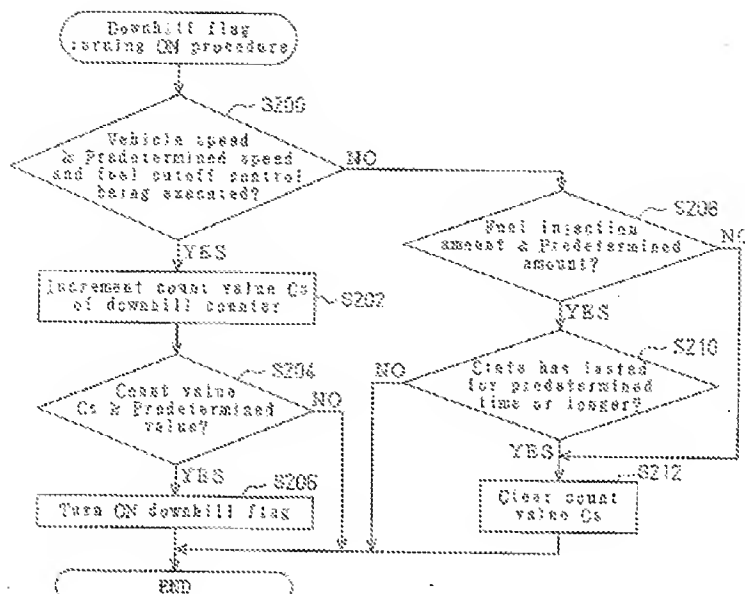


Figure A: FIG. 4 of the Published Application

As the Examiner himself admits, the Wakamoto device as modified by Imai fails to disclose that the determining section determines that the vehicle is driving downhill when the amount of fuel injected by a fuel injection valve of the engine is equal to or less than a predetermined amount and the vehicle speed is equal to or greater than a predetermined speed. (Office Action at 4.) The Examiner claims that Nakata discloses this limitation.

Nakata teaches that secondary air is supplied to the catalyst when the engine revolution speed is greater than or equal to a predetermined engine revolution speed, but does not disclose or suggest that the supplying of such secondary air is controlled based on the *vehicle driving speed*. Nakata at best discloses that a revolution speed of the engine may be used to determine a fuel-cut operation. (Nakata at col. 14, ll. 12 – 20.)

Using the inventions of claims 1 and 8, when the vehicle is driving downhill deactivation of the exhaust purification catalyst is determined more accurately based on the *vehicle driving speed* than the engine revolution speed, since this deactivation is more closely correlated with the vehicle driving speed than with the engine revolution speed (See page 16, lines 7-21 of the Applicant's specification).

Thus, it is respectfully submitted that the Office Action's reading of Nakata is in error, and this reference fails to make up for the deficiencies of Wakamoto and Imai. As discussed in

KSR Int'l Co. v. Teleflex Inc., it remains necessary to identify the reason why a person of ordinary skill in the art would have been prompted to combine alleged prior art elements in the manner as claimed. 550 U.S. 398, 418 (2007). Mere conclusory statements are insufficient. *Id.*

Accordingly, lacking any teaching and/or suggestion of each and every limitation of the inventions of claims 1 and 8, neither Wakamoto, Imai, nor Nakata, either singly or in combination with each other, render the Applicant's claims obvious.

Therefore, based on the foregoing, it is respectfully submitted that claims 1 and 8, as well as their dependent claims, are patentable over the cited references.

IV. Conclusion

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is respectfully requested.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application.

Applicants do not believe that any additional fees are required in connection with this submission. Nonetheless, Applicants authorize payment of any additional fees under 37 CFR §§ 1.16 or 1.17 or credit any overpayment to Deposit Account No. 11-0600.

Respectfully submitted,

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